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9	SUPERIOR COURT OF THE STATE OF CALIFORNIA			
10	COUNTY OF LOS ANGELES			
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12	ANTELOPE VALLEY GROUNDWATER CASES	Judicial Council Coordination No. 4408		
13		CLASS ACTION		
14	Included Actions: Los Angeles County Waterworks District	Santa Clara Case No. 1-05-CV-049053		
15	No. 40 v. Diamond Farming Co., Superior Court of California, County of Los Angeles, Case No. BC 325201;	Assigned to The Honorable Jack Komar		
16	Los Angeles County Waterworks District	DECLARATION OF BRUCE N. NELSON		
17 18	No. 40 v. Diamond Farming Co., Superior Court of California, County of Kern, Case No. S-1500-CV-254-348;	IN LIEU OF DEPOSITION FOR PHASE 4 TRIAL		
19	Wm. Bolthouse Farms, Inc. v. City of			
20	Lancaster, Diamond Farming Co. v. City of Lancaster, Diamond Farming Co. v.			
21	Palmdale Water Dist., Superior Court of California, County of Riverside, Case Nos.			
22	RIC 353 840, RIČ 344 436, RIC 344 668			
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2 | I, Bruce N. Nelson, declare:

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1. I am a senior groundwater hydrologist at EDE Consultants and nationally registered professional engineer and I have been working in the field of hydrology and water resources engineering for close to thirty years. I have been retained as a Water Resources Consultant for Rio Tinto Minerals, Boron Operations (U.S. Borax), a party to this action, in order to provide

providing this declaration in lieu of deposition. This declaration applies only to the categories I

U.S. Borax with technical assistance with regards to groundwater hydrology and supply. I am

my further investigation into issues I previously explored with regards to U.S. Borax's Response

have filled in. The items left blank or crossed out do not apply to me. The facts herein represent

to Discovery Order for Phase 4 Trial. I have personal knowledge of each fact herein and would testify competently thereto under oath.

## **Property Ownership and Parcel Size**

- 2. I am informed and on that information hereby declare that U.S. Borax and its subsidiaries and/or holding companies own property that overlies the Antelope Valley Area of Adjudication as decided by this Court. The land is in Kern County and is identified by the APNs listed in Exhibit A. A true and correct copy of Exhibit A is attached hereto and incorporated herein.
- 3. U.S. Borax claims groundwater rights only as to the properties listed in Exhibit A.
- 4. For each APN identified in Exhibit A, the acreage within the Antelope Valley Area of Adjudication is tabulated and displayed in the second column of Exhibit A.
- 5. For each APN identified in Exhibit A, the purchase date is displayed in the third column of Exhibit A.
- 6. The following are all individuals/entities appearing on the title for the above identified APNs from January 1, 2000 to the present: U.S. Borax and its subsidiaries and/or holding companies have title to all APNs listed in Exhibit A. Ownership of these parcels by U.S. Borax and its subsidiaries and/or holding companies is documented in Exhibit P. A true and correct copy of Exhibit P is attached hereto and incorporated herein.
- 7. For each individual/entity identified in paragraph 6 that individual/entity appeared on the

- 1 title during the following time: U.S. Borax and its subsidiaries and/or holding companies have
- 2 | had title to the APNs identified in Exhibit A from the time of purchase as set forth in Exhibit A to
- 3 present.
- 4 Leases
- 5 8. U.S. Borax and subsidiaries and/or holding companies do not lease property that overlies
- 6 the Antelope Valley Area of Adjudication as decided by this court.
- 7 9. N/A.
- 8 10. N/A.
- 9 11. N/A.
- 10 | 12. N/A.
- 11 | 13. Clean Energy Fuels Corporation and EIF Mojave LLC lease property from U.S. Borax
- which overlies the Antelope Valley Area of Adjudication as decided by this court and is identified
- 13 by the following APNs:
- 14 Clean Energy Fuels Corporation: APN 232-040-16 Parcel 2 and APN 232-040-14 Parcel 1.
- 15 | EIF Mojave LLC 1: APN 232-040-18 Parcel A.
- 16 | EIF Mojave LLC 2: APN 232-040-19 Parcel B.
- 17 | EIF Mojave LLC 3: APN 232-040-24 Parcel B.
- 18 14. The total acreage by parcel is:
- 19 Clean Energy Fuels Corporation: APN 232-040-16 Parcel 2 (35.76 Acres) and APN 232-040-14
- 20 Parcel 1 (299.27 Acres)
- 21 | EIF Mojave LLC 1: APN 232-040-18 Parcel A (3.36 Acres)
- 22 | EIF Mojave LLC 2: APN 232-040-19 Parcel B (4.62 Acres)
- 23 | EIF Mojave LLC 3: APN 232-040-24 Parcel B (4.35 Acres)
- 24 | 15. The lease between U.S. Borax and Clean Energy Fuels Corporation provides at Section
- 25 \ 2.4 that U.S. Borax, as Lessor, shall be responsible for providing process and fire water supplies
- 26 to the premises pursuant to a Water Supply Services agreement that is appended to the lease.
- 27 The lease between U.S. Borax and EIF Mojave LLC provides, at Sections 4.6 and 6.2 of the
- 28 Thermal Sales and Shared Services Agreement appended to the lease, that U.S. Borax shall make

1	arrangements to supply water to EIF Mojave LLC as well as supply a fire protection system. The		
2	leases between U.S. Borax as Lessor and Clean Energy Fuels Corporation and EIF Mojave LLC		
3	as Lessees, designated as Exhibit D1 and Exhibit D2, respectively, contain proprietary and		
4	privileged confidential information. They can be made available subject to a confidentiality		
5	agreement or protective order to be agreed upon with counsel for U.S. Borax.		
6	16. N/A.		
7	17. N/A.		
8	18. To the best of my knowledge, none of the Lessees claim groundwater rights as to the		
9	leased parcels identified in paragraph 15.		
10	Water Meter Records		
11	19. U.S. Borax currently measures the groundwater production on the above referenced		
12	properties by electronic water meters through a Supervisory Control and Data Acquisition		
13	(SCADA) system that continuously monitors water flow and provides a data logging function to		
14	record totalized volumes. U.S. Borax has water meter records in the form of either monthly or		
15	annual reports for the following years: 2000 through 2004, 2011, and 2012. Records for the		
16	years 2000 through 2004 were compiled through manual reading of water meters, tabulation of		
17	those readings as part of annualized summary sheets, and incorporation of those summary sheets		
18	into annual reports. Records for the years 2011 and 2012 were compiled through the use of the		
19	SCADA system. U.S. Borax retains the following records for the years 2000 through 2004:		
20	Annual Total U.S. Borax Water Usage 1958 – 2009, a document containing annual water		
21	meter data for the years 2000 through 2004		
22	U.S. Borax retains the following records for the years 2011 and 2012:		
23	Compilation of Monthly Water Summaries for January 2011 through November 2011, a		
24	document containing monthly water meter data for the months January 2011		
25	through November 2011		
26	Monthly Water Summary for December 2011, a document containing monthly water		
27	meter data for the month of December 2011		
28	Monthly Water Summaries for January 2012 through September 2012, a set of documents		

containing water meter data for every month in 2012 with the exception of October, November, and December (summaries for these months are not available at this time)

The records identified above contain detailed information regarding U.S. Borax's water usage and production, including but not limited to information regarding groundwater from areas within the Antelope Valley Area of Adjudication, groundwater from areas outside the Antelope Valley Area of Adjudication, State Water Project water supplied by a State Water Contractor, and other sources providing water to U.S. Borax. These records were used in the calculation of the production amounts set forth in paragraph 20 below. Because these records contain proprietary and privileged confidential information regarding other sources of water, distribution and usage of water at U.S. Borax's facilities and properties, and technical calculations related to supply, processing, and usage, they are not produced here. Designated Exhibit E, these records can be made available subject to a confidentiality agreement or protective order to be agreed upon with counsel for U.S. Borax.

20. Exhibit F sets forth the total yearly production amounts by metered water well on the above referenced properties for the years 2000 through 2004, 2011, and 2012. These amounts were calculated through use of the records designated as Exhibit E and explained in paragraph 19 above. A true and correct copy of Exhibit F is attached hereto and incorporated herein.

## **State Water Project Purchases**

- 21. U.S. Borax purchases State Water Project water from a State Water Contractor for use by U.S. Borax on the properties referenced above. Exhibit G contains true and correct copies of the invoices for delivery of State Water Project Water to the properties referenced above.
- 22. Exhibit H sets forth the total yearly State Water Project water deliveries to the properties referenced above for a time period including the years 2000 through 2004, 2011, and 2012.
- These amounts were calculated through the use of the records in Exhibit G. A true and correct copy of Exhibit H is attached hereto and incorporated herein.

## Pump Tests/ Electric Records

23. N/A.

1	24.	N/A.
2	25.	N/A.
3	26.	U.S. Borax is not producing pump test records because: Flow measurements are made
4	with electronic water meters through a SCADA system that continuously monitors water flow and	
5	provides a data logging function to record totalized volumes at the inlet to the processing plant	
6	water storage tank. Measurements are not estimated based upon pump test/pump efficiency data	
7	and electrical use records.	
8	27.	I am not aware of any other pump tests having been performed on the properties
9	referenced above.	
10		Pump Tests/Diesel Records
11	28.	N/A.
12	29.	N/A.
13	30.	N/A.
14	31.	U.S. Borax is not producing pump test records because: Diesel driven pumps are not used
15	for water pumping from groundwater wells.	
16	32.	I am not aware of any other pump tests having been performed on the properties
17	referenced above.	
18		Crop Duties and Irrigated Acres
19	33.	N/A.
20	34.	N/A.
21		Other Sources of Water
22	35.	On the properties referenced above, U.S. Borax received water from sources other than
23	groundwater pumped within the Basin or State Water Project Water. Exhibit O sets forth the	
24	source of the water and the amounts received for the years 2000 through 2004, 2011, and 2012.	
25	The amounts identified in Exhibit O were calculated from various sources including the meter	
26	reports designated as Exhibit E and explained in paragraph 19 above. A true and correct copy of	
27	Exhibit O is attached hereto and incorporated herein.	
28		Use of Water

- 36. U.S. Borax used 3,745 acre feet of water in 2000 in borate mining and milling processes.
- 2 This number is calculated using technical data including the figures set forth above in Exhibits F,
- 3 H, and O. Borate mining and milling processes include the production of a variety of refined
- 4 odium borate products by dissolving the raw borate salts (ore) in water and recrystallizing the
- 5 boron in various hydration states and chemical combinations. Raw borate ore is also processed
- 6 with water, steam, and other reactants to produce various boric acid products. In addition to the
- above and typical water uses, water is also used in the mine pit area for dust suppression and to
- 8 make steam for co-generation of electricity which is used in the processing plant as well as in
- 9 | liquification of natural gas which is used to fuel vehicles used in the mine and processing plant.
- 10 | 37. U.S. Borax used 3,225 acre feet of water in 2001 for borate mining and milling processes
- as described above. This number is calculated using technical data including the figures set forth
- 12 above in Exhibits F, H, and O.

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- 13 | 38. U.S. Borax used 3,407 acre feet of water in 2002 for borate mining and milling processes
- 14 as described above. This number is calculated using technical data including the figures set forth
- above in Exhibits F, H, and O.
- 16 39. U.S. Borax used 3,380 acre feet of water in 2003 for borate mining and milling processes
- 17 as described above. This number is calculated using technical data including the figures set forth
- 18 above in Exhibits F, H, and O.
- 19 40. U.S. Borax used 3,685, acre feet of water in 2004 for borate mining and milling processes
- 20 as described above. This number is calculated using technical data including the figures set forth
- 21 above in Exhibits F, H, and O.
- 22 | 41. U.S. Borax used 3,512 acre feet of water in 2011 for borate mining and milling processes
- as described above. This number is calculated using technical data including the figures set forth
- 24 above in Exhibits F, H, and O.
- 25 | 42. U.S. Borax used 3,021 acre feet of water in 2012, not including the months of October,
- 26 November, and December, for borate mining and milling processes as described above. This
- 27 number is calculated using technical data including the figures set forth above in Exhibits F, H,
- 28 and O.

43. Other than what is declared above, U.S. Borax did not produce or use water within the Antelope Valley Area of Adjudication for 2000 through 2004, 2011, and 2012. - 7 -

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 31st day of January 2013. BRUCE N. NELSON, P.E.